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Assessment of Simulated Changes in Air Temperature and Precipitation over Central Asia via Multi-Model Ensemble Means of CMIP5 Models

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In this study, we conducted a multi-model ensemble mean approach in order to investigate the projected changes in surface air temperatures and precipitation totals over Central Asia. Even though there are totally sixty seven different models of thirty modeling groups all around the world participating in the World Climate Research Programme (WCRP) Coupled Model Intercomparison Project (CMIP5), forty four models among them were used due to data availability. Central Asia (known as Region 8), which is one of twelve domains of the Coordinated Regional Climate Downscaling Experiment (CORDEX), was chosen as a domain of study. In this respect, we focused on two distinct scenarios (i.e. RCP4.5 and RCP8.5) for three different future periods (i.e. 2010-2040, 2040 - 2070 and 2070 - 2100) to examine accurately the foreseen changes in two fundamental climate variables (surface air temperature and precipitation total) for the Central Asia region.
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